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L1 7 S E3
L2 21403 S ADHESIVE TAPE
L3 0 S ADHESIVE REGION AND GRIP TAB
L4 16 S SELF ADHESIVE ON BOTH SIDES
L5 148 S SELF ADHESIVE(P)BOTH SIDES
L6 148 S (SELF ADHESIVE)(P)(BOTH SIDES)
L7 0 S (ADHESIVE REGION)(P)(GRIP TAB)
L8 11 S ADHESIVE(P)AREA(P)(GRIP TAB)

=> s 18 and 15

L9 1 L8 AND L5

=> d 19 cit ab

1. 5,897,949, Apr. 27, 1999, Adhesive tape; Bernd Luhmann, et al.,
428/317.3, 317.7, 343, 355BL, 355RA [IMAGE AVAILABLE]

US PAT NO: 5,897,949 [IMAGE AVAILABLE]

L9: 1 of 1

ABSTRACT:

Adhesive tape for a bond which can be redetached by pulling, without residue and without damage, having a foam backing coated on one or both sides with a self-adhesive composition, characterized in that

- a) on at least one of the two sides of the foam backing there is applied a self-adhesive composition whose ratio of tear strength to stripping force (peel force) at a peel angle of less than 10.degree. to the bond surface is greater than 1.2:1,
- b) the foam backing is subjected to controlled pretreatment/damaging in such a way that the detachment force (stripping force) is lowered relative to an analogous self-adhesive tape with a foam backing which has not been correspondingly pretreated/damaged, and
- c) the foam backing does not have a tear strength which is sufficient for redetachment without residue or damage.

=> d 111 cit ab 1-3

1. 5,897,949, Apr. 27, 1999, Adhesive tape; Bernd Luhmann, et al., 428/317.3, 317.7, 343, 355BL, 355RA [IMAGE AVAILABLE]

US PAT NO: 5,897,949 [IMAGE AVAILABLE]

L11: 1 of 3

ABSTRACT:

Adhesive tape for a bond which can be redetached by pulling, without residue and without damage, having a foam backing coated on one or both sides with a self-adhesive composition, characterized in that

- a) on at least one of the two sides of the foam backing there is applied a self-adhesive composition whose ratio of tear strength to stripping force (peel force) at a peel angle of less than 10.degree. to the bond surface is greater than 1.2:1,
- b) the foam backing is subjected to controlled pretreatment/damaging in such a way that the detachment force (stripping force) is lowered relative to an analogous self-adhesive tape with a foam backing which has not been correspondingly pretreated/damaged, and
- c) the foam backing does not have a tear strength which is sufficient for redetachment without residue or damage.

2. 5,108,384, Apr. 28, 1992, Disposable absorbent article with combination mechanical and adhesive tape fastener system and having reserve adhesive tape for improved disposability; David J. K. Goulaït, 604/390, 389 [IMAGE AVAILABLE]

US PAT NO: 5,108,384 [IMAGE AVAILABLE]

L11: 2 of 3

ABSTRACT:

A disposable absorbent article, such as a diaper, having an improved tape fastener system is disclosed. The improved tape fastener system comprises a mechanical fastening means, initial adhesive securement means, and a reserve/protected adhesive securement means. The mechanical fastening means provide for effective side closure of the absorbent article, whereas the initial adhesive securement means provides a convenient initial disposal mechanism by which the absorbent article may be folded or rolled up into a configuration for disposal, secured in the disposal configuration, and thrown away. If the initial disposal adhesive becomes contaminated or insufficient for securing the absorbent article in its disposal configuration, the reserve/protected adhesive is available for use, with only minimal additional effort.

3. 5,019,065, May 28, 1991, Disposable absorbent article with combination mechanical and adhesive tape fastener system; Charles L. Scripps, 604/385.1, 389, 391 [IMAGE AVAILABLE]

US PAT NO: 5,019,065 [IMAGE AVAILABLE]

L11: 3 of 3

ABSTRACT:

A disposable absorbent article with a combination mechanical and adhesive tape fastener system. The tape fastener system preferably comprises a tape tab comprising a first fastening element joined to and disposed on a first area of the tape tab and adhesive associated with and disposed on at least a second area of the tape tab. The adhesive not only secures the tape tab to the body portion of the absorbent article to provide a side closure but also secures the absorbent article in its disposal configuration so as to prevent the contents of the soiled absorbent article from spilling or leaking out of the absorbent article. Preferably, a portion of the adhesive is disposed subjacent the first fastening element to join the first fastening element to the tape tab.

=> s e3

L1 7 "LUHMANN, BERND"/IN

=> d l1 cit ab 1-7

1. 5,928,747, Jul. 27, 1999, Redetachable, self-adhesive device; Bernd Luhmann, et al., 428/40.1; 248/467, 683; 428/40.2, 41.3, 41.8, 42.1, 192, 194 [IMAGE AVAILABLE]

US PAT NO: 5,928,747 [IMAGE AVAILABLE]

L1: 1 of 7

ABSTRACT:

Redetachable, self-adhesive device having a plate, the sides and/or front side of which have fastening means, if appropriate, and the rear side of which has a strip of an adhesive film which is adhesive on both sides and is adhesively attached in such a way that one end of the adhesive film protrudes beyond the plate as a grip, the adhesive film being of such a kind that the adhesive bond achieved with it can be released again by pulling in the direction of the bonding plane, stretching the strip, characterized in that the rear side of the plate (1) has laterally alongside the adhesively attached adhesive film (5) spacers (3A, 3B), the height of which is less than the thickness of the adhesive film (5).

2. 5,925,459, Jul. 20, 1999, Use of a strip of adhesive film; Dieter Zimmermann, et al., 428/354, 192, 194, 355RA; 524/271, 274, 525 [IMAGE AVAILABLE]

US PAT NO: 5,925,459 [IMAGE AVAILABLE]

L1: 2 of 7

ABSTRACT:

Use of a transparent grip tab for a strip of adhesive film for a temporary bond based on thermoplastic rubber and tackifier resins, where the adhesive film is of high elasticity and low plasticity and where the adhesion is lower than the cohesion, the adhesion largely disappears when the film is extended, the ratio of peel force to tear load is at least 1:1.5, and where an adhesive bond produced therewith can be detached by pulling on the adhesive film in the direction of the bond plane.

3. 5,913,480, Jun. 22, 1999, Redetachable, self-adhesive fastening device; Bernd Luhmann, et al., 24/304; 428/166, 354 [IMAGE AVAILABLE]

US PAT NO: 5,913,480 [IMAGE AVAILABLE]

L1: 3 of 7

ABSTRACT:

Redetachable, self-adhesive fastening device having a base plate, the front side of which serves for fastening and the rear side of which has a strip of an adhesive film which is adhesive on both sides and is adhesively attached in such a way that one end of the adhesive film protrudes beyond the base plate as a grip, the adhesive film being of such a kind that the adhesive bond achieved with it can be released again by pulling in the direction of the adhesive bonding plane, stretching the strip, characterized in that the rear side of the base plate has duct-like depressions in the region in which the strip of adhesive film is adhesively attached, these depressions extending at least partially beyond the region of the strip of adhesive film.

4. 5,897,949, Apr. 27, 1999, Adhesive tape; Bernd Luhmann, et al., 428/317.3, 317.7, 343, 355BL, 355RA [IMAGE AVAILABLE]

US PAT NO: 5,897,949 [IMAGE AVAILABLE]

L1: 4 of 7

ABSTRACT:

Adhesive tape for a bond which can be redetached by pulling, without residue and without damage, having a foam backing coated on one or both sides with a self-adhesive composition, characterized in that

- a) on at least one of the two sides of the foam backing there is applied a self-adhesive composition whose ratio of tear strength to stripping force (peel force) at a peel angle of less than 10.degree. to the bond surface is greater than 1.2:1,
- b) the foam backing is subjected to controlled pretreatment/damaging in such a way that the detachment force (stripping force) is lowered relative to an analogous self-adhesive tape with a foam backing which has not been correspondingly pretreated/damaged, and
- c) the foam backing does not have a tear strength which is sufficient for redetachment without residue or damage.

5. 5,725,923, Mar. 10, 1998, Use of a strip of self-adhesive film for temporary bonds; Bernd Luhmann, 428/40.1; 206/411; 428/41.7, 41.8, 194, 202, 212, 214, 354 [IMAGE AVAILABLE]

US PAT NO: 5,725,923 [IMAGE AVAILABLE]

L1: 5 of 7

ABSTRACT:

Piece of adhesive film for a temporary bond,

- a) comprising a double-sided adhesive film
- b) whose adhesive surfaces have been rendered non-adhesive in areas lying opposite one another in an offset manner, where
- c) the non-adhesive areas only overlap slightly, or not at all, and
- d) the adhesive bond produced therewith can be separated by pulling apart the non-adhesive areas, in particular by pulling in the direction of the bond plane.

6. 5,491,012, Feb. 13, 1996, Use of a strip of an adhesive film for a re-releasable adhesive bond; Bernd Luhmann, et al., 428/41.6; 206/411; 428/192, 194, 214, 323, 346, 347, 349, 354, 355R [IMAGE AVAILABLE]

US PAT NO: 5,491,012 [IMAGE AVAILABLE]

L1: 6 of 7

ABSTRACT:

Use of a strip of an adhesive film for a re-releasable adhesive bond based on thermoplastic elastomer and tackifying resins, the adhesive film having high elasticity and low plasticity and the adhesion being lower than the cohesion, the adhesive strength largely disappearing during extension of the film, the ratio of peel strength to tear strength being at least 1:1.5, and an adhesive bond produced therewith being releasable by pulling on the adhesive film in the direction of the plane of adhesion, one end of the strip being provided on both sides with a UV-opaque covering which at the same time serves as a tab for pulling.

7. 5,409,189, Apr. 25, 1995, Redetachable, self-adhesive hook; Bernd Luhmann, 248/205.3; 156/313; 248/304; 428/43, 100 [IMAGE AVAILABLE]

US PAT NO: 5,409,189 [IMAGE AVAILABLE]

L1: 7 of 7

ABSTRACT:

Redetachable, self-adhesive hook or similar fixing device, characterized by a strip (1) of an adhesive film for reseparable bonding based on a thermoplastic rubber and tackifying resins, wherein the adhesive film has high elasticity and low plasticity and wherein the adhesion is lower than the cohesion, the adhesive power largely disappears on extension of the film, the ratio of the peel strength to the tear load is at least 1:1.5, and wherein an adhesive bond produced with this can be separated by pulling on the adhesive film in the direction of the adhesion plane, wherein one end of the strip (1) is provided on both sides with a covering (4), which at the same time serves as a tab for pulling, wherein at least the covering (4) located on the front side is opaque to UV and wherein the front side of the strip (1) carries, except for in the region of the covering (4), a baseplate (3) having a peg-shaped extension (2) pointing forwards, and the reverse of the strip (1) is covered with a release paper or a release film (5) which has a tab (6) in the region of the covering (4).